Annex1 *(until release of ISO 9241-3xx)*

Basis for GS Test of IT Equipment in Combination with Visual Display Units (EK1-ITB 2000)

(Summary, Date 2008-01-01)

Requirement	Standard / Reference	CRT - VDU	Flat panel Display	PC (System unit) with CRT – VDU or Flat panel Display	Keyboard	Notebook	Printer Scanner	Peripheral devices	Non-keyboard input devices
1 Image quality	DIN EN 29241-3	**X**		**X or**					
	DIN EN ISO 13406-2		**X**	**X**		**X**			
2 Reflection characteristics	DIN EN ISO 9241-7	**X**							
	DIN EN ISO 13406-2		**X**			**X**			
3 Colour requirements	DIN EN ISO 9241-8	**X**		**X or**					
	DIN EN ISO 13406-2		**X**	**X**		**X**			
4 Input requirements	DIN EN ISO 9241-4				**X**	**X** 3)			
	DIN 2137				**X** 2)	**X** 2)			
	DIN EN ISO 9241-9					**X**			**X**
5 Sound power level L_{WAd} (Operation according to manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	**X** 1)	**X** 1)	**X** 1)	**X** 1)	**X** 1)	**X** 1)	**X** 1)	**X** 1)
6 Sound pressure level L_{pAm} (Operation according to manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	**X** 1)	**X** 1)	**X** 1)	**X** 1)	**X** 1)	**X** 1)	**X** 1)	**X** 1)
7 Tilt angle max. forward: min. backward:	BildscharbV, A 5.	 5° ≥ 5°	 ≥ 5°		**X** 7)	 ≥ 5°			
8 Swivel (rotation)	BildscharbV, A 5.	max. ± 180°	max. ± 180°						
9 Max. force to swivel	BildscharbV, A 5.	max. 100 N	max. 100 N						
10 Brightness adjustable	BildscharbV, A 3.	**X**	**X**			**X**			
11 Contrast adjustable	BildscharbV, A 3.	**X**	**X** 4)			**X** 4)			
12 Gloss of housing	BildscharbV, A 8., A 15.	≤ 20 gloss units	≤ 20 gloss units	≤ 20 gloss units	≤ 20 gloss units	≤ 20 gloss units	≤ 20 gloss units	≤ 20 gloss units	≤ 20 gloss units
13 Headphone output	EN 50332	**X** 5)	**X** 5)	**X** 5)	**X** 5)	**X** 5)		**X** 5)	
14 Technical documentation	GPSG	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
15 User's manual	GPSG	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**

Remark:

Requirements marked with **X** have to be proved.

1) With integrated fan.

2) With German layout.

3) Apply DIN EN ISO 9241-4 excluding exeptions given in DIN 2137-12.

4) If technically provided.

5) if available

6) (Not used)

7) A mechanism for tilt shall be available, the maximum tilt is 15°.

BildscharbV = German Ordinance for work with Visual Display Units, based on European Council Directive 90/270/EEC

GPSG = German Product Safety & liability law

Annex 1 *(with release of ISO 9241-3xx)*
Basis for GS Test of IT Equipment in Combination with Visual Display Units (EK1-ITB 2000)

Requirement	Standard / Reference	CRT - VDU	Flat panel Display	PC (System unit) with CRT – VDU or Flat panel Display	Keyboard	Notebook	Printer Scanner	Peripheral devices	Non-keyboard input devices	Pocket-PC 8)
1 Image quality	DIN EN ISO 9241-3xx	X	X	X		X				X
2 Input requirements	DIN EN ISO 9241-4				X	X 3)				*X 8)*
	DIN 2137				X 2)	X 2)				
	DIN EN ISO 9241-9					X			X	*X 8)*
3 Sound power level L_{WAd} (Operation according to manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	X 1)	X 1)	X 1)	X 1)	X 1)	X 1)	X 1)	X 1)	
4 Sound pressure level L_{pAm} (Operation according to manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	X 1)	X 1)	X 1)	X 1)	X 1)	X 1)	X 1)	X 1)	
5 Tilt angle max. forward: min. backward:	BildscharbV, A 5.	 5° ≥ 5°	 ≥ 5°		X 7)	 ≥ 5°				
6 Swivel (rotation)	BildscharbV, A 5.	max. ± 180°	max. ± 180°							
7 Max. force to swivel	BildscharbV, A 5.	max. 100 N	max. 100 N							
8 Brightness adjustable	BildscharbV, A 3.	X	X			X				*X 4)*
9 Contrast adjustable	BildscharbV, A 3.	X	X 4)			X 4)				*X 4)*
10 Gloss of housing	BildscharbV, A 8., A 15. DIN EN ISO 9241-3xx	*X*	*X*	≤ 20 gloss units	≤ 20 gloss units	X	≤ 20 gloss units	≤ 20 gloss units	≤ 20 gloss units	*X*
11 Headphone output	EN 50332	X 5)	X 5)	X 5)	X 5)	X 5)		X 5)		X 5)
12 Technical documentation	GPSG	X	X	X	X	X	X	X	X	X
13 User's manual	GPSG	X	X	X	X	X	X	X	X	X 8)

Remark:
Requirements marked with **X** have to be proved.
1) With integrated fan.
2) With German layout.
3) Apply DIN EN ISO 9241-4 excluding exeptions given in DIN 2137-12.
4) If technically provided.
5) if available
6) (Not used)
7) A mechanism for tilt shall be available, the maximum tilt is 15°.
8) see Annex 5
BildscharbV = German Ordinance for work with Visual Display Units, based on European Council Directive 90/270/EEC, GPSG = German Product Safety & liability law

Annex 2

Test procedure for character heigth: Example for 17“ CRT - VDU

Viewing distance: 500 mm
Resolution: 1024 x 768

System-configuration	Font	Character height		Matrix	Alternative test pattern for character „m“	Alternative test pattern for character „e“
Small fonts	Arial 10	2,95 mm	20,3‘	7 x 10	¦###¦###¦ ¦###¦###¦ ¦###¦###¦ ¦###¦###¦	¦¦¦¦ ¦### ¦### ¦¦¦¦ ¦### ¦### ¦¦¦¦
Large fonts	Arial 10	3,7 mm	25,4‘	9 x 12	¦####¦####¦ ¦####¦####¦ ¦####¦####¦ ¦####¦####¦	¦¦¦¦ ¦### ¦### ¦### ¦¦¦¦ ¦### ¦### ¦### ¦¦¦¦

Annex 3

Cancelled - 12th meeting AG1 EK1

Annex 4:
Ergonomic Requirements for flat panels for GS-mark
(Interpretation of DIN EN ISO 13406-2 according to AG1 of EK1, 72a-03 Rev. 1)
(Interpretation of DIN EN ISO 9241-3xx)

(until release of ISO 9241-3xx)

1. Viewing distance (typical)= 500 mm

2. Viewing direction class:
- Class III: Θ range = Θ range $_{min}$ or according to manufacturers specification
- Class II: Θ range = 2 x arc tan Dactive/Ddesign view but < 80°
- Class I: Θ range ≥ 80 °

3. Equation 49 in chapter 8.7.2.1 does not apply for viewing direction class I.

4. Required inclination-angle range classes shall be taken from table 45.

5. Set up of the display:
a) Use of the natural resolution
b) Verical frequency = 60 Hz or according to manufacturers specification
c) Adjust brightness to maximum
d) Adjustment of the screen at analogues input: use auto adjustment (if an auto adjustment is not available use a pixel checkerboard for adjustment (clock, pase and geometry))
e) Generate a gray scale image: gray steps of more than 10% must be visually distinguishable
f) Warm-up time before test: minimum 1 h, better 2 h (use a screen saver during warm-up)
g) Colour temperature: according to manufacturers specification otherwise 6500 K.

6. Guideline for the GS test

Requirement	Classes	obligatory	for GS mark
7.1 Design viewing distance (touch screens)		≥400mm ≥300 mm	500 mm
7.2 Design viewing direction	I,II,III,IV		Table 45
7.3 Design screen illumination emissive displays transflective and reflective displays		250-750 lx Minimum illuminance Defined by the manufacturer	Screen tilt angle 10° 250 lx + 250 lx cos α Minimum illuminance Defined by the manufacturer
7.5 Chromaticity uniformity difference	I,II,III,IV	IV	Table 45
7.6 Character height		≥16 ´	20´ - only for fix fonts
7.7 Stroke width		8% till 20%	8% till 20% - only for fix fonts
7.8 Character width to height ratio		0,5:1 till 1:1	0,5:1 till 1:1 - only for fix fonts
7.9 Fill factor		≥0,3	≥0,3
7.10 Character format		≥ 5x7	≥ 7x9 - only for fix fonts
7.11 Between-character spacing		≥ 1 pixel	≥ 1 pixel - only for fix fonts
7.12 Between- word spacing		≥ 1 pixel	≥ 1 pixel - only for fix fonts
7.13 Between-line spacing		≥ 1 pixel	≥ 1 pixel - only for fix fonts
7.14 Display luminance	I,II,III,IV	III	Table 45
7.15 Contrast	I,II,III,IV	III	Table 45
7.17 Reflections class reflection	I,II,III	I,II or III	see EK1-ITB 2000 and EK1 decision A.2.9.5
7.17.1 Contrast in the presence of reflections	I,II,III,IV	I,II,III,IV	see EK1-ITB 2000 and EK1 decision A.2.9.5
7.17.2 Contrast of un-wanted reflections	I,II,III,IV	I,II,III,IV	see EK1-ITB 2000 and EK1 decision A.2.9.5
7.18 Image polarity		If the screen is intended for use in negative and positive polarity, use both polarities during the tests.	If the screen is intended for use in negative and positive polarity, use both polarities during the tests.

Requirement	Classes	obligatory	for GS mark
7.19 Luminance uniformity	I,II,III,IV	IV	Table 45
7.20 Pixel faults	I,II,III,IV	I,II,III,IV	I or II according to Table 3
7.21 Image formation time	t≤10 ms 10<t≤55 ms 55<t≤200 ms t>200 ms	manufacturers specification within table 1	manufacturers specification within table 1
7.22 Absolute luminance coding	I,II,III,IV	IV	Not tested (see 7.27)
7.24 Flicker		Annex B (informativ)	Test according to Annex B or visual
7.27 Colour differences	I,II,III,IV	IV	Table 45; default colour set 16 Farben (255, 0, 128, 192); in case of non compliance check with absolute luminance coding 7.22

with release of ISO 9241-3xx

Determination of the intended context of use according to ***ISO 9241-307, (example)***

Element	Attribut	Quantification
User	Vision	User with normal or to normal corrected vision of any age, 7 years or older (any literate user).
Environment	Design screen illuminance, E_S	Vertical 250 lx + 250 lx × cos(α) in offices, where α is the screen tilt angle. The screen tilt angle is considered to be 75°.
	Typical components of the illumination: Large aperture source (15°) and small aperture source (1°) illumination	1. $L_{REF,EXT}$ = 200 cd/m² and $L_{REF,SML}$ = 2 000 cd/m² (suitable for general office use); 2. $L_{REF,EXT}$ = 200 cd/m² or $L_{REF,SML}$ = 2 000 cd/m² (suitable for most, but not all, office environments); 3. $L_{REF,EXT}$ = 125 cd/m² or $L_{REF,SML}$ = 200 cd/m² (requires a specially controlled luminous environment). Dabei ist: $L_{REF,EXT}$ is the luminance of the large aperture source (15°) and $L_{REF,SML}$ is the luminance of the small aperture source (1°).
	Illuminant	CIE illuminant D65
	Ambient temperature	ambient temperature of approximate 15°C to 35°C is considered.
Task	Content and perception	Artificial information
	Amount of information	Preferred screen size for sufficient amount of information with appropriate object size and resolution.
	Image type	Still image, quasi-static or moving image is considered, if not otherwise specified by the supplier.
	Design viewing distance, $D_{design,view}$	500 mm
	Design viewing direction, Θ_D, Φ_D	Within a specific range of angles from the normal.
	Design viewing direction range (angle of inclination and azimuth)	Viewing cone with a single visual display The maximum inclination angle range Θ_{range} is: $\Theta_{range} = 2 \times \arctan(D_{active}/2 \times D_{design,view})$. Where D_{active} is the diagonal of the active display area and $D_{design,view}$ is the design viewing distance. The design inclination angle is within $0° \le \Theta_D \le 40° - \Theta_{range}/2$. The azimuth angle Φ is 0° bis 360°. NOTE This definition correspond to viewing direction range class $Class_{viewing}$ III of earlier ISO 13406-2.
	Eye and head position	From fixed to moving.
	Number of users	Typical single or multiple.
Usage	Display handling	For this compliance route stationary display handling is considered, if not otherwise specified by the supplier.

Annex 5:
Ergonomic Requirements for Pocket-PC's (AG1 of EK1, 70-02)

1. Definition: Pocket-PC
PC with integrated Display, which is smaller than DIN A4 (12th meeting AG1 EK1) and which includes an alphanumeric keyboard and/or a pen for data input and which is not used for steady work of visual display tasks.

2. Use of Pocket-PC
In general Pocket-PC's are hold by hand or standy-situated on a table.

3. Requirements according EK1-ITB 2000 and remarks

until release of ISO 9241-3xx the following table is valid
don't use the following table with release of ISO 9241-3xx

Requirements	Standards /references	Pocket-PC
1 Image Quality	ISO 13406-2	see a)
2 reflection characteristics	ISO 13406-2	see a)
3 Color characteristics	ISO 13406-2	see a)
4 Input requirements	DIN EN ISO 9241-4 DIN 2137 DIN EN ISO 9241-9	see b) see c)
5 Sound power level LWAd (operation according manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	N/A
6 Schalldruckpegel LpA (Betrieb laut Hersteller)	ISO 7779 (ISO 9296) BildscharbV, A 17.	N/A
7 tilt angle max. forward: min. backward:	BildscharbV, A 5.	N/A
8 Swivel rotation	BildscharbV, A 5.	N/A
9 force to swivel	BildscharbV, A 5.	N/A
10 brightness adjustable	BildscharbV, A 3.	**X** (as far as foreseen)
11 contrast adjustable	BildscharbV, A 3.	**X** (as far as foreseen)
12 gloss of housing (reflections)	BildscharbV, A 8., A 15.	≤ 20 Gloss units
13 technical documentation	GSG	**X**
14 User's manual	GSG	**X** see d)

With **X** marked requirements basically have to be fulfilled.

until release of ISO 9241-3xx the following table 3 a) is valid
don't use the following table 3 a) with release of ISO 9241-3xx

a) Display and information presentation (ISO 13406-2):

Clause DIN EN ISO 13406-2	Applicability/Limitation
7.1	**Design viewing distance** Viewing distance min. 300mm at pocket PC's held by hand Viewing distance min. 500mm at pocket PC's lying on table
7.2	**Design viewing direction** Taking into account a viewing direction of up to 20° (max. 40°).
7.3	**Design screen illuminance** Specification of minimum and maximum ambient illumination by manufacturer
7.4	**Gaze and head-tilt angles** N/A
7.5	**Chromaticity uniformity difference** minimum Viewing direction class IV
7.6	**Character height** Character height minimum 20-22 minutes of arc
7.7	**Stroke width** Apply
7.8	**Character width-to-height ratio** Apply
7.9	**Fill factor** Apply
7.10	**Character format** Apply
7.11	**Between-character spacing** Apply
7.12	**Between-word spacing** Apply
7.13	**Between-line spacing** Apply
7.14	**Display luminance** Illumination according actual presented research results With integrated illumination: minimum 3cd/m² .
7.15	**Contrast** Contrast according actual presented research results $CR_{min} = 2{,}2 \bullet (1 + 2{,}2 \bullet L_L^{-0{,}65}) = 2{,}2 + 4{,}84 \bullet L_L^{-0{,}65}$
7.16	**Luminance balance** N/A
7.17	**Reflections** Small sized specular reflections (1°) are not to be considered as they can be eliminated by typical use. Only diffuse and specular big sized reflections (15°) have to be considered.
7.18	**Image polarity** Apply
7.19	**Luminance uniformity** Minimum Viewing direction class IV
7.20	**Pixel faults** Apply

7.21	**Image formation time** Apply
7.22	**Absolute luminance coding** N/A
7.23	**Blink coding** N/A
7.24	**Temporal instability (flicker)** Apply: Flickermeasurement can also be performed for grey-scale
7.25	**Default colour set** Apply
7.26	**Multicolour object size** N/A
7.27	**Colour differences** Anwenden
7.28	**Spectrally extreme colours** N/A
7.29	**Number of colours** N/A

b) Keyboard of Pocket-PC's (ISO 9241-4, ISO/IEC 9995):

Clause ISO 9241-4	Applicability/Limitation
6.1.1	**Palm-rests** N/A
6.1.2	**Sections of the keyboard** N/A
6.1.3	**Home row height** N/A
6.1.4	**Slope of the keyboard** Apply
6.1.5	**Profile of keyboard** Anwenden
6.1.6	**Keyboard surfaces and material properties of keyboards** Apply
6.1.7	**Keyboard placement** N/A
6.1.8	**Keyboard slope adjustment mechanism** N/A
6.2.1	**Key layout and center-line spacing** N/A
6.2.2	**Keytop design** Minimum 64mm²
6.2.3	**Key displacement and force** Anwenden
6.2.4.1	**General** Apply
6.2.4.2	**Kinaesthetic feedback** N/A

6.2.4.3	**Auditory feedback** N/A
6.2.4.4	**Visual feedback** Apply
6.2.5	**Rebound action (bounce)** Apply
6.2.6	**Key roll-over** Apply
6.2.7	**Key repeat function** Apply (Software)
6.2.8.1	**Graphical symbols** N/A
6.2.8.2	**Geometric design of key legends** Apply
6.2.8.3	**Number and positioning of legends** N/A
6.2.8.4	**Durability of legends** Apply
6.2.9	**Cursor keys and keys in the editing section** Apply modified
6.2.10	**Numeric keypad** Apply if applicable
6.2.11	**Keytop shape** Apply

ISO/IEC 9995

Clause ISO 9995-1	Applicability/Limitation
7.4	Key location numbering requirements Anwendbar
8.1	Group positions Ersten Absatz nicht anwenden Zweiten Absatz anwenden
8.2	Level positions within one group Anwendbar, wenn die drei Ebenen in einer Spalte dargestellt werden
Clause ISO 9995-2	Applicability/Limitation
7	Arrangement and location of keys in the alphanumeric zone of the alphanumeric section N/A
8	Functions of the alphanumeric zone of the alphanumeric section Applicable
Clause ISO 9995-3	Applicability/Limitation
5	Common secondary group layout Applicable
6	Complementary Latin group layout Applicable
Clause ISO 9995-4	Applicability/Limitation
5-10	Apply if present
Clause ISO 9995-5	Applicability/Limitation
5-12	Apply grouping of Cursor keys only as „Cross“ or „Inverte T“ Layout
Clause ISO 9995-6	Applicability/Limitation
5-6	Apply
Clause ISO 9995-7	Applicability/Limitation
5	Descriptions of functions Not to apply as used keys are not commonly used
Clause ISO 9995-8	Applicability/Limitation
5-6	Apply if present

c) Pen (ISO 9241-9):
Requiremnets according ISO 9241-9:2000 Clause 6.2.6.1 (**Grasp surface)**, 6.2.6.5 (**Size)** und 6.2.6.6 (**Weight)** shall be fulfilled.

d) Remark in the Users Manual and certificate
„not for permanent video display work“
„nicht für stänige Bildschirmarbeit geeignet“

Annex 6: Data to be provided by the GS certificate (minimum)

a) Notebook
until release of ISO 9241-3xx the following table is valid

Item	***Example***	**Item**
1 Zertifikat-Nr. Certificate No.	*123456789*	2 Ausstellungsdatum Date of Issue
3 Genehmigungsinhaber License Holder	*Notebook GmbH*	4 Fertigungsstätte Manufacturing Plant
5 Abbildung des Prüfzeichens Figure of test mark	*= GS-Zeichen der Prüfstelle*	6 Prüfberichtsnummer Test Report No.
7 Prüfgrundlagen Test basis	*EN 60950-1:2001*	
	EK1-ITB 2000:2004	
8 Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product identification)	*Bezeichnung* *Type designation*	
9 Nennspannung/-frequenz Rated Voltage Rated Frequency	*Xvc V/u Hz*	
10 Nennstrom Rated Current	*S A*	
11 Schutzklasse Protection Class	*N*	
12 LCD-Display/Modul LCD Panel	*Xyxxxx123*	
13 Pixelfehlerklasse Pixel Fault Class	*P*	
14 Reflexionsklasse (für pos./neg. Polarität) Reflection Class (neg./pos. Polarity)	*c/d*	
15 Blickrichtungsklasse für den Kontrast Class Viewing Contrast	*ef*	
16 Blickrichtungsklasse für die Farben Class Viewing Colour	*g/h*	
17 Schalldruckpegel Sound Pressure level	*Ui dB*	
18 deklarierter Schallleistungspegel Declared Sound Power Level	*Kl dB(A)*	
19 Gültigkeitsdauer des Zertifikates Certificate valid until	*uv.wx.yz*	
20 Name des Zertifizierers Name of the person who does the certification	*V. Certus*	21 Unterschrift des Zertifizierers Signature of the person who does the certification
22 Zertifizierungsstelle mit Angabe der Anschrift Certification Body inc. address	*Cert GmbH, Certhausen*	
23 Hinweis, dass dem Zertifikat eine Prüf- und Zertifizierungsordnung zugrunde liegt. Hint, that the certificate is based on Testing and Certification Regulations.		

24 Feststellung, dass das Produkt die Anforderungen des GPSG erfüllt. Statement, that the product meets the requirements of GPSG.

a) Notebook

with release of ISO 9241-3xx use the following table

Bezeichnung	***Beispiel***	**Bezeichnung**
1 Zertifikat-Nr. Certificate No.	*123456789*	2 Ausstellungsdatum Date of Issue
3 Genehmigungsinhaber License Holder	*Notebook GmbH*	4 Fertigungsstätte Manufacturing Plant
5 Abbildung des Prüfzeichens Figure of test mark	*= GS-Zeichen der Prüfstelle*	6 Prüfberichtsnummer Test Report No.
7 Prüfgrundlagen Test basis	*EN 60950-1:2005*	
	EK1-ITB 2000:2007	
8 Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product identification)	*Bezeichnung* *Type designation*	
9 Nennspannung/-frequenz Rated Voltage Rated Frequency	*Xvc V/u Hz*	
10 Nennstrom Rated Current	*S A*	
11 Schutzklasse Protection Class	*N*	
12 LCD-Display/Modul LCD Panel	*Xyxxxx123*	
13 Pixelfehlerklasse Pixel Fault Class	*P*	
14 Geeignet für Umgebungen nach EN 12464-1 Suitable for environments according to EN 12464-1		
15 vorgesehener Sehabstand design viewing distance	*ef*	
16 vorgesehene Sehrichtung und Sehrichtungsbereich design viewing direction and viewing direction range	°	
Inhalt und Wahrnehmung Content and perception		
17 Schalldruckpegel Sound Pressure level	*Ui dB*	
18 deklarierter Schallleistungspegel Declared Sound Power Level	*Kl dB(A)*	
19 Gültigkeitsdauer des Zertifikates Certificate valid until	*uv.wx.yz*	
20 Name des Zertifizierers Name of the person who does the certification	*V. Certus*	21 Unterschrift des Zertifizierers Signature of the person who does the certification
22 Zertifizierungsstelle mit Angabe der Anschrift Certification Body inc. address	*Cert GmbH, Certhausen*	

23 Hinweis, dass dem Zertifikat eine Prüf- und Zertifizierungsordnung zugrunde liegt. Hint, that the certificate is based on Testing and Certification Regulations.
24 Feststellung, dass das Produkt die Anforderungen des GPSG erfüllt. Statement, that the product meets the requirements of GPSG.

b) Flat Panel Display

until release of ISO 9241-3xx the following table is valid

Item	***Example***	**Item**
1 Zertifikat-Nr. Certificate No.	*123456789*	2 Ausstellungsdatum Date of Issue
3 Genehmigungsinhaber License Holder	*Display GmbH*	4 Fertigungsstätte Manufacturing Plant
5 Abbildung des Prüfzeichens Figure of test mark	*= GS-Zeichen der Prüfstelle*	6 Prüfberichtsnummer Test Report No.
7 Prüfgrundlagen Test basis	*EN 60950-1:2001*	
	EK1-ITB 2000:2004	
8 Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product identification)	*Bezeichnung* *Type designation*	
9 Nennspannung/-frequenz Rated Voltage Rated Frequency	*Xvc V/u Hz*	
10 Nennstrom Rated Current	*S A*	
11 Schutzklasse Protection Class	*N*	
12 LCD-Display/Modul LCD Panel	*Xyxxxx123*	
13 Pixelfehlerklasse Pixel Fault Class	*P*	
14 Reflexionsklasse (für pos./neg. Polarität) Reflection Class (neg./pos. Polarity)	*c/d*	
15 Blickrichtungsklasse für den Kontrast Class Viewing Contrast	*ef*	
16 Blickrichtungsklasse für die Farben Class Viewing Colour	*g/h*	
19 Gültigkeitsdauer des Zertifikates Certificate valid until	*uv.wx.yz*	
20 Name des Zertifizierers Name of the person who does the certification	*V. Certus*	21 Unterschrift des Zertifizierers Signature of the person who does the certification
22 Zertifizierungsstelle mit Angabe der Anschrift Certification Body inc. address	*Cert GmbH, Certhausen*	
23 Hinweis, dass dem Zertifikat eine Prüf- und Zertifizierungsordnung zugrunde liegt. Hint, that the certificate is based on Testing and Certification Regulations.		
24 Feststellung, dass das Produkt die Anforderungen des GPSG erfüllt. Statement, that the product meets the requirements of GPSG.		

b) Flat Panel Display

with release of ISO 9241-3xx use the following table

Bezeichnung	***Beispiel***	**Bezeichnung**
1 Zertifikat-Nr. Certificate No.	*123456789*	2 Ausstellungsdatum Date of Issue
3 Genehmigungsinhaber License Holder	*Display GmbH*	4 Fertigungsstätte Manufacturing Plant
5 Abbildung des Prüfzeichens Figure of test mark	*= GS-Zeichen der Prüfstelle*	6 Prüfberichtsnummer Test Report No.
7 Prüfgrundlagen Test basis	*EN 60950-1:2005*	
	EK1-ITB 2000:2007	
8 Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product identification)	*Bezeichnung* *Type designation*	
9 Nennspannung/-frequenz Rated Voltage Rated Frequency	*Xvc V/u Hz*	
10 Nennstrom Rated Current	*S A*	
11 Schutzklasse Protection Class	*N*	
12 LCD-Display/Modul LCD Panel	*Xyxxxx123*	
13 Pixelfehlerklasse Pixel Fault Class	*P*	
14 Geeignet für Umgebungen nach EN 12464-1 Suitable for environments according to EN 12464-1	cd/m² / cd/m²	
15 vorgesehener Sehabstand design viewing distance	*ef*	
16 vorgesehene Sehrichtung und Sehrichtungsbereich design viewing direction and viewing direction range	°	
Inhalt und Wahrnehmung Content and perception		
19 Gültigkeitsdauer des Zertifikates Certificate valid until	*uv.wx.yz*	
20 Name des Zertifizierers Name of the person who does the certification	*V. Certus*	21 Unterschrift des Zertifizierers Signature of the person who does the certification
22 Zertifizierungsstelle mit Angabe der Anschrift Certification Body inc. address	*Cert GmbH, Certhausen*	
23 Hinweis, dass dem Zertifikat eine Prüf- und Zertifizierungsordnung zugrunde liegt. Hint, that the certificate is based on Testing and Certification Regulations.		
24 Feststellung, dass das Produkt die Anforderungen des GPSG erfüllt. Statement, that the product meets the requirements of GPSG.		

c) PC (Personal Computer)

Item	***Example***	**Item**
1 Zertifikat-Nr. Certificate No.	*123456789*	2 Ausstellungsdatum Date of Issue
3 Genehmigungsinhaber License Holder	*PC GmbH*	4 Fertigungsstätte Manufacturing Plant
5 Abbildung des Prüfzeichens Figure of test mark	*= GS-Zeichen der Prüfstelle*	6 Prüfberichtsnummer Test Report No.
7 Prüfgrundlagen Test basis	*EN 60950-1:2001*	
	EK1-ITB 2000:2004	
8 Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product identification)	*Bezeichnung* *Type designation*	
9 Nennspannung/-frequenz Rated Voltage Rated Frequency	*Xvc V/u Hz*	
10 Nennstrom Rated Current	*S A*	
11 Schutzklasse Protection Class	*N*	
17 Schalldruckpegel Sound Pressure level	*Ui dB*	
18 deklarierter Schallleistungspegel Declared Sound Power Level	*Kl dB(A)*	
19 Gültigkeitsdauer des Zertifikates Certificate valid until	*uv.wx.yz*	
20 Name des Zertifizierers Name of the person who does the certification	*V. Certus*	21 Unterschrift des Zertifizierers Signature of the person who does the certification
22 Zertifizierungsstelle mit Angabe der Anschrift Certification Body inc. address	*Cert GmbH, Certhausen*	
23 Hinweis, dass dem Zertifikat eine Prüf- und Zertifizierungsordnung zugrunde liegt. Hint, that the certificate is based on Testing and Certification Regulations.		
24 Feststellung, dass das Produkt die Anforderungen des GPSG erfüllt. Statement, that the product meets the requirements of GPSG.		

Annex 7 Requirements for Electronic Scales

7.1 Definition
Electronic scales with indicators for the weighing of wares for use at cash registers and weihing work stations.
Note: Products limited to a single indicator line are exempt.

7.2 Application
Electronic scales are used at display terminal work stations (i.e. as weighing or measuring instruments by employees of markets).
The use/implementation usually takes place at stationary cash register and weighing work stations as well as at standing and sitting work stations.

7.3 Requirements
Electronic scales with LCD indicators and display terminals must comply with the same requirements as those for flat panel displays. The actual context of use (environment, task, user) are to be taken into consideration. For technologies other than LCD, the analog equivalent standardized requirements apply.

until release of ISO 9241-3xx the following table is valid

Requirement	Standard / Referenz	Elektronic Scale
1 Image quality	DIN EN 29241-3	
	DIN EN ISO 13406-2	**X** 1)
2 Reflection characteristics	DIN EN ISO 9241-7	
	DIN EN ISO 13406-2	**X** 1)
3 Colour requirements	DIN EN ISO 9241-8	
	DIN EN ISO 13406-2	**X** 1)
4 Input requirements	DIN EN ISO 9241-4	–
	DIN 2137	–
	DIN EN ISO 9241-9	**X**
5 Sound power level L_{WAd} (Operation according to manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	–
6 Sound pressure level L_{pAm} (Operation according to manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	–
7 Tilt angle max. forward: min. backward:	BildscharbV, A 5.	≥ 5°
8 Swivel (rotation)	BildscharbV, A 5.	–
9 Max. force to swivel	BildscharbV, A 5.	–
10 Brightness adjustable	BildscharbV, A 3.	**X**
11 Contrast adjustable	BildscharbV, A 3.	**X** 2)
12 Gloss of housing (Reflexion)	BildscharbV, A 8., A 15.	≤ 20 gloss units
13 Headphone output	EN 50332	–
14 Technical documentation	GPSG	**X**
15 Instructions for use	GPSG	**X**

Remarks:
Requirements marked with an X must always be included
1) Also included is an analysis of the character attributes of the various character sets as well as the contrast and reflection of the various color combinations.

2) if technically provided

with release of ISO 9241-3xx use the following table

Requirement	**Standard / Referenz**	**Elektronic Scale**
1 Image quality	DIN EN ISO 9241-3xx	**X** 1)
2 Input requirements	DIN EN ISO 9241-4	–
	DIN 2137	–
	DIN EN ISO 9241-9	**X**
3 Sound power level L_{WAd} (Operation according to manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	–
4 Sound pressure level L_{pAm} (Operation according to manufacturer)	ISO 7779 (ISO 9296) BildscharbV, A 17.	–
5 Tilt angle	BildscharbV, A 5.	
max. forward:		
min. backward:		≥ 5°
6 Swivel (rotation)	BildscharbV, A 5.	–
7 Max. force to swivel	BildscharbV, A 5.	–
8 Brightness adjustable	BildscharbV, A 3.	**X**
9 Contrast adjustable	BildscharbV, A 3.	**X** 2)
10 Gloss of housing (Reflexion)	BildscharbV, A 8., A 15. DIN EN ISO 9241-3xx	**X**
11 Headphone output	EN 50332	**2)**
12 Technical documentation	GPSG	**X**
13 Instructions for use	GPSG	**X**

Remarks:
Requirements marked with an X must always be included
1) Also included is an analysis of the character attributes of the various character sets as well as the contrast and reflection of the various color combinations.
2) if technically provided